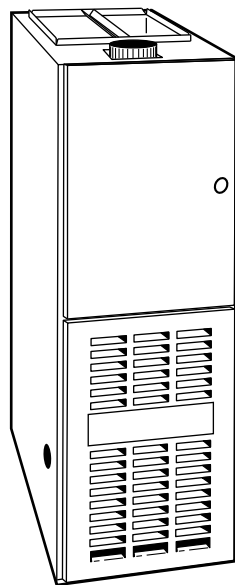




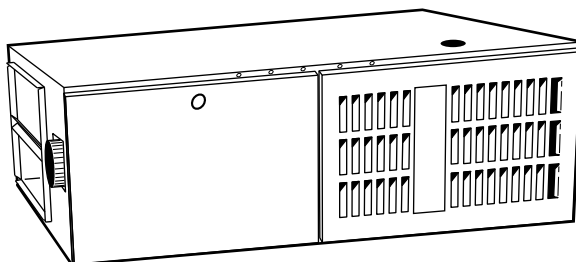
## Product Data

# 58TMA WeatherMaker® 8000 2-Speed Energy-Efficient Downflow/Horizontal Gas Furnace

Input Capacities:  
65,000 thru 125,000 Btuh



**DOWNFLOW**



**HORIZONTAL**

### Two-Speed Heating for Energy-Efficient Gas Furnaces

Carrier continues to lead the industry with our new WeatherMaker® 8000 Two-Speed Induced-Combustion Gas Furnace. Our furnace operates at 2 different speeds which provide outstanding home comfort. This furnace is built with the most advanced manufacturing equipment processes and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features.

These 2-speed, induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well—delivering an Annual Fuel Utilization Efficiency (AFUE) rating of 80.0 percent. The Carrier WeatherMaker 8000 Two-Speed utilizes a hot surface, silicon carbide ignition system to save energy and increase reliability.

Our engineers have incorporated the patented S-shaped 4-pass heat exchanger, a soft mount 2-speed inducer assembly, and a 2-stage slow-opening gas valve to minimize sound level. The Super-S heat exchanger provides better heat transfer while enabling us to make a compact furnace, providing more room in closet, utility room, and short basement installations. The heat exchanger is constructed of aluminized steel and is backed by a 20-year Limited Warranty.

The Carrier WeatherMaker 8000 Two-Speed Gas Furnace will meet

your home heating requirements. This furnace family provides the widest range of heating capacities available.

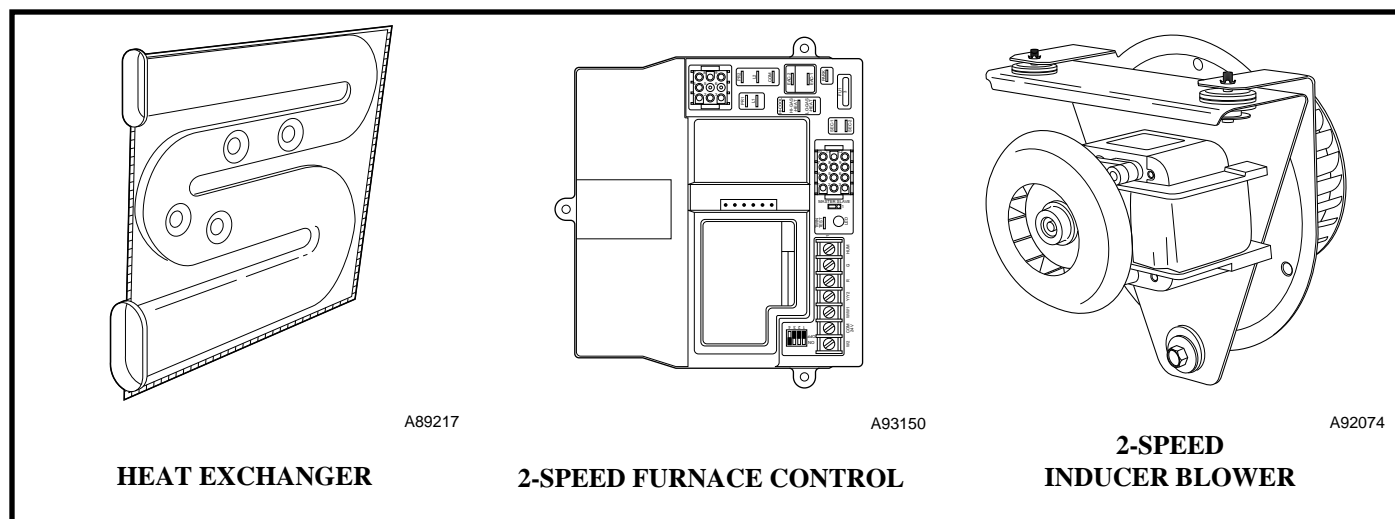
The superior attention to cabinet detail is obvious. The Carrier WeatherMaker 8000 Two-Speed features 1-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the furnace. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting. Then the cabinet is constructed of prepainted steel—the same high-quality finish found on refrigerators and dishwashers.

Perhaps the most advanced feature of the Carrier WeatherMaker 8000 Two-

Speed is the state-of-the-art micro-processor control center which shows true leadership in furnace technology. The simplified electronics in this control provide high reliability while performing many of the functions of older, electro-mechanical devices in other furnaces. The control provides blower delay at start-up and shutdown, while monitoring furnace operations and functions. In the unlikely event of a service call, in less than a minute, the technician can use the component-test feature to determine if a major component has failed. The control will check itself; then the low and high inducer; silicon carbide ignition; low-, medium-, and high-speed blower. Another benefit of the control is the

3-amp fuse that protects the transformer and control. Our control is backed by a 3-year Limited Warranty.

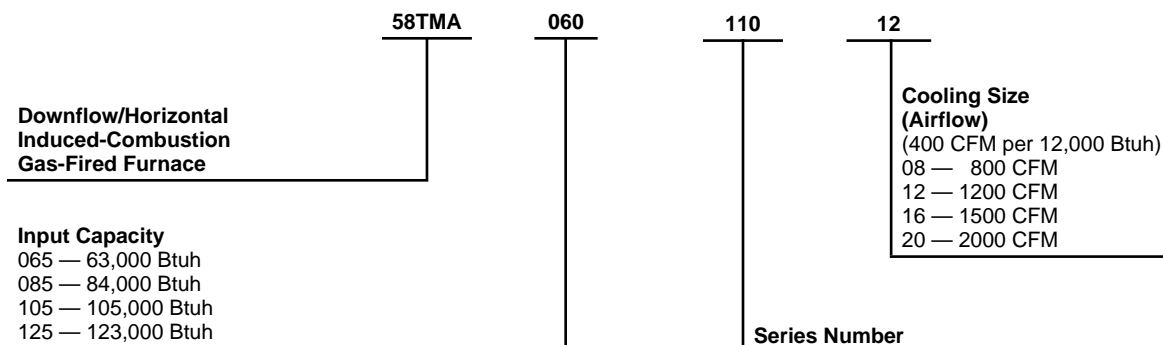
Best of all, the Carrier WeatherMaker 8000 Two-Speed is easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, blower speed selector, cased or uncased cooling coils, low-voltage, humidifier, and electronic air cleaner terminal connections are among other features. This furnace is designed for multipositioned downflow, right horizontal, or left horizontal applications.



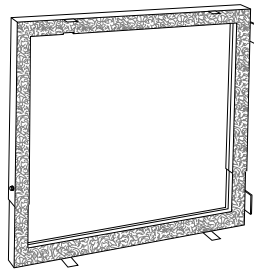
**MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.**

Before purchasing this appliance, read important energy cost and efficiency information available from your retailers.

## Model number nomenclature



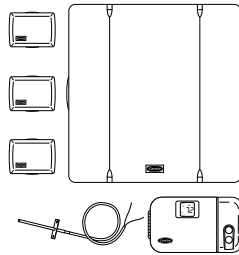
# Carrier accessories\*



A88202

## DOWNFLOW SUBBASE

One base fits all furnace sizes. The base is designed to be installed between the furnace or coil box and a combustible floor. It is A.G.A. design certified for use with Carrier 58TMA furnaces.

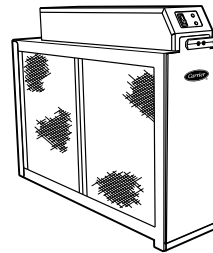


A97432

## CONTROLS: THERMOSTATS AND ZONING

Available in programmable and non-programmable models, Carrier thermostats maintain a constant, comfortable temperature level in the home.

For the ultimate in home comfort, Carrier's 2, 4 and 8-zone systems allow temperature control of individual "zones" of the home. This is accomplished through a series of electronic dampers and remote room sensors. The 4-zone system is shown.

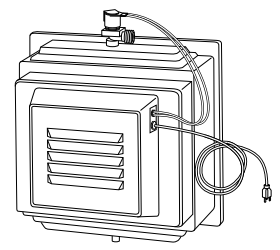


A97380

## MECHANICAL OR ELECTRONIC AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses by keeping carpets, furniture, and drapes cleaner.

Electronic air cleaner is shown.



A91365

## MODEL 49FH HUMIDIFIER

By adding moisture to winter-dry air, a Carrier humidifier can often improve comfort and keep furniture, rugs, and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

UNIT SIZE	065-08 and 12	085-12 and 16	105-16 and 20	125-20
AIR CLEANER	Model AIRA or 31MF			
HUMIDIFIER	Model 49BF, 49BG, 49FH, 49FP or 49WS			
VENTILATOR	Model VA3B, VB5B, VC5B, or VL3A			
THERMOSTAT — NON-PROGRAMMABLE	For Use With Air Conditioner — TSTATCCNAC01-A For Use With Heat Pump — TSTATCCNHP01-A			
THERMOSTAT — PROGRAMMABLE	For Use With Air Conditioner — TSTATCCPAC01-A For Use With Heat Pump — TSTATCCPHP01-A			
THERMIDISTAT™ WITH HUMIDITY CONTROL	TSTATCCPRH01-A			
DOWNFLOW SUBBASE†	KGASB0201ALL			
HIGH-ALTITUDE PRESSURE SWITCH KIT†	KGAHA5601PSW			
GAS CONVERSION KIT— NATURAL-TO-PROPANE	KGANP24012SP			
PROPANE-TO-NATURAL	KGAPN20012SP			

\* Factory authorized and field installed. Gas conversion kits are A.G.A. recognized.

† 5500 ft and higher above sea level.

‡ Required for installation on combustible floors when no coil box is used, or when any coil box other than a Carrier cased coil is used.

# Physical data

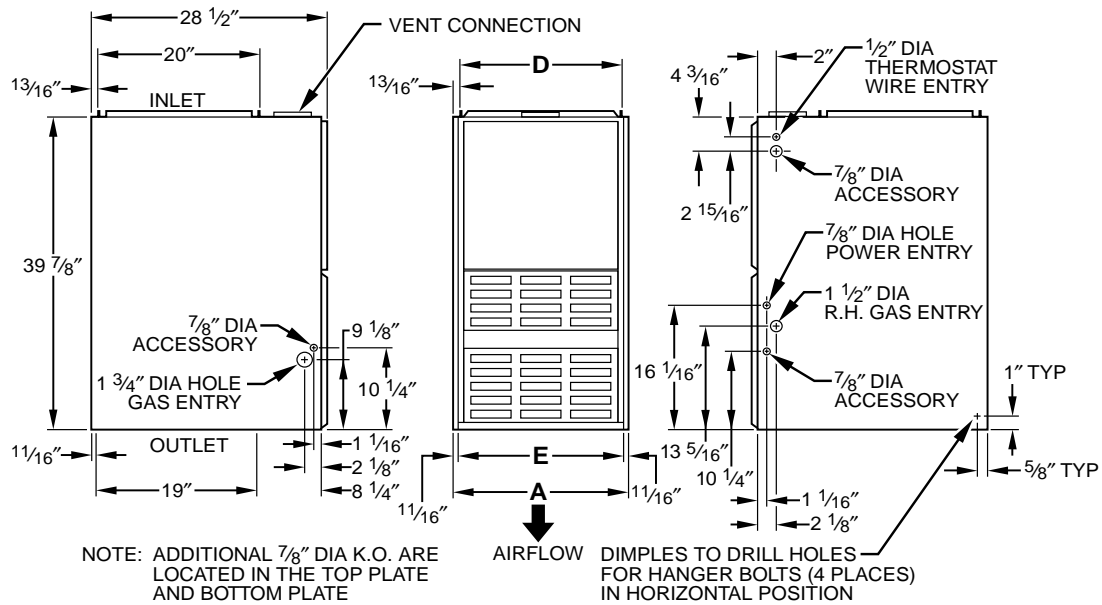
UNIT SIZE	065-08	065-12	085-12	085-16	105-16	105-20	125-20
OUTPUT CAPACITY (BTUH) High/Low† Nonweatherized ICS	51,000/33,000	51,000/33,000	69,000/44,000	69,000/44,000	86,000/55,000	86,000/55,000	101,000/66,000
INPUT BTUH* High/Low	63,000/40,500	63,000/40,500	84,000/54,000	84,000/54,000	105,000/67,500	105,000/67,500	123,000/81,000
SHIPPING WEIGHT (Lb)	141	145	154	154	171	181	192
CERTIFIED TEMP RISE RANGE (°F)	High Stage	55—85	30—60	40—70	25—55	45—75	35—65
	Low Stage	30—60	15—45	25—55	15—45	25—55	20—50
CERTIFIED EXT STATIC PRESSURE	Heating	0.12	0.10	0.15	0.15	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50
AIRFLOW CFM	Heating High/Low	660/585	1195/1030	1060/900	1355/1170	1405/1220	1735/1500
	Cooling	930	1195	1255	1580	1645	1950
SECONDARY LIMIT CONTROL	Manual Reset						
LIMIT CONTROL	SPST (Auto-Reset)						
HEATING BLOWER CONTROL	Solid-State Time Operation						
INDUCER	2-Speed						
BURNERS (Monoport)	3		4		5		6
GAS CONNECTION SIZE	1/2-in. NPT						
GAS VALVE (Redundant) Manufacturer	White-Rodgers						
Minimum Inlet Pressure (In. wc)	4.5 (Natural Gas)						
Maximum Inlet Pressure (In. wc)	13.6 (Natural Gas)						
MAIN BURNER IGNITER	Hot Surface						

\* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table 10-2. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

† Capacity in accordance with U.S. Government DOE test procedures.

ICS—Isolated Combustion System

# Dimensions



A88324

**DIMENSIONS (In.)**

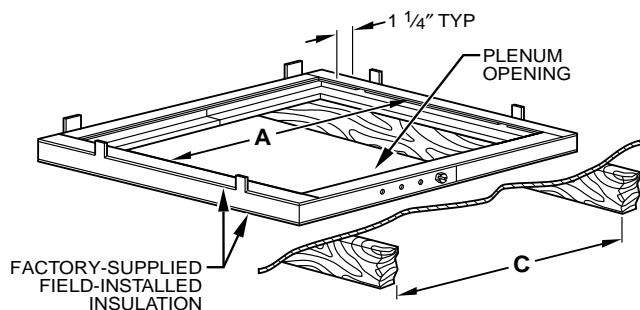
UNIT SIZE	A	D	E	VENT CONN	SHIP. WT (Lb)
065-08	14-3/16	12-9/16	12-11/16	4	141
065-12	14-3/16	12-9/16	12-11/16	4	124
085-12	17-1/2	15-7/8	16	4	154
085-16	17-1/2	15-7/8	16	4	154
105-16	17-1/2	15-7/8	16	4	171
105-20	21	19-3/8	19-1/2	4	181
125-20	24-1/2	22-7/8	23	5	192

## Accessory downflow subbase

**DIMENSIONAL DATA (In.)**

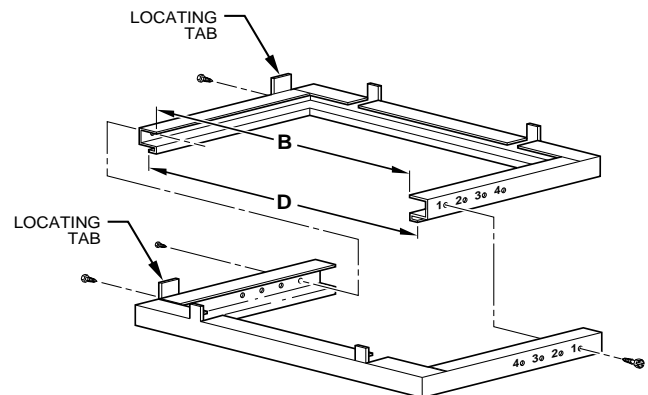
FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
14-3/16	11-13/16	19	13-7/16	20-3/8	4
11-1/2	15-1/8	19	16-3/4	20-3/8	3
21	18-5/8	19	20-1/4	20-3/8	2
24-1/2	22-1/8	19	23-3/4	20-3/8	1

\* The plenum should be constructed 1/4 in. smaller in width and depth than the plenum dimensions shown above.



**Assembled**

A88206



**Disassembled**

A88207

# Dimensions

## MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

This forced air furnace is equipped for use with natural gas at altitudes 0-10,000 ft (0-3,050m).

An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

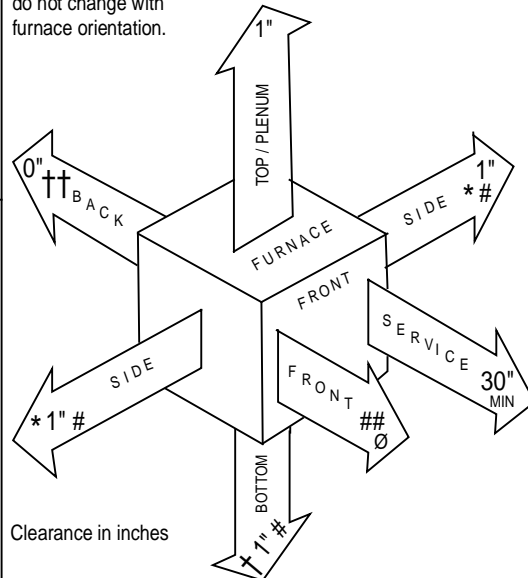
This furnace may be installed on combustible flooring in alcove or closet at minimum clearance from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas-fired appliances.

- † For installation on non-combustible floors only.
- † For installation on combustible flooring only when installed on special base, Part No. KGASB0201ALL, Coil Assembly, Part No. CD5 or CK5, or Coil Casing, Part No. KCAKC.
- # For furnaces wider than 14.25 inches (362mm) may be 0 inches.
- Ø 18 inches front clearance required for alcove.
- \* Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.
- ## For single wall vent type 6 inches.  
For Type B-1 vent type 3 inches.
- †† Clearance to Back 0 inches (0 po) in downflow and horizontal (attic/alcove & crawlspace) positions and 3 inches (3 po) in horizontal closet positions.

This furnace is approved for DOWNFLOW and HORIZONTAL installations.

Clearance arrows do not change with furnace orientation.



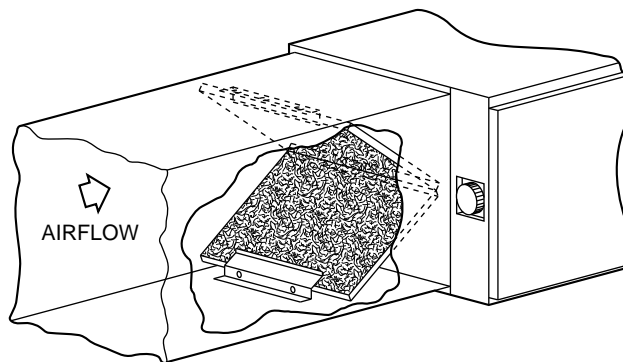
Clearance in inches

Vent Clearance to combustibles:  
For Single Wall vents 6 inches (6 po).  
For Type B-1 vent type 1 inch (1 po).

322286-101 REV. E (LIT)

A97617

## Filter arrangement



**Filter Retainers  
(Field Supplied)**

A94307

# Performance data

UNIT SIZE	065-08	065-12	085-12	085-16	105-16	105-20	125-20
DIRECT-DRIVE MOTOR HP (PSC)	1/5	1/3	1/3	1/2	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	2.9	5.1	5.8	7.4	7.4	11.0	11.1
RPM (Nominal)—SPEEDS	1075—4	1075—5	1075—4	1075—5	1075—5	1075—5	1075—4
BLOWER WHEEL DIAMETER x WIDTH (In.)	10 x 6	10 x 6	10 x 7	10 x 8	10 x 8	11 x 10	11 x 10
FILTER SIZE (In.)—(WASHABLE, SUPPLIED)	(2) 14 x 20 x 1				(2) 14 x 20 x 1	(2) 16 x 20 x 1	

PSC—Permanent Split Capacitor

## ENERGY EFFICIENCY

UNIT SIZE	065-08	065-12	085-12	085-16	105-20	125-20
CAPACITY BTUH (Low/High)* Nonweatherized ICS	33,000/52,000	33,000/52,000	44,000/69,000	44,000/69,000	55,000/86,000	66,000/101,000
AFUE %* Nonweatherized ICS	80.0	80.0	80.0	80.0	80.0	80.0

\* Capacity and AFUE in accordance with U.S. Government DOE test procedures.

ICS—Isolated Combustion System

## AIR DELIVERY (CFM)

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (in. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
065-08	High	—	—	1010	975	930	885	825	745
	Med-High	—	815	800	765	725	685	620	550
	Med-Low	—	660	645	620	590	545	480	415
	Low	590	570	545	510	470	405	360	295
065-12	High	1435	1385	1320	1265	1195	1145	1080	1000
	Med-High	1195	1165	1145	1105	1070	1015	955	885
	Med	1030	1020	1010	985	955	915	860	790
	Med-Low	900	890	875	855	835	795	755	690
085-12	High	1445	1420	1380	1320	1255	1180	1075	940
	Med-High	1255	1250	1220	1180	1140	1065	975	830
	Med-Low	1060	1055	1045	1025	975	915	820	680
	Low	900	895	890	870	830	760	665	545
085-16	High	1855	1765	1710	1665	1580	1570	1410	1310
	Med-High	1595	1570	1530	1485	1410	1355	1280	1200
	Med	1355	1345	1305	1270	1220	1170	1110	1025
	Med-Low	1170	1170	1140	1110	1075	1025	965	890
105-16	High	1895	1855	1780	1725	1645	1565	1460	1355
	Med-High	1620	1595	1560	1530	1470	1390	1310	1215
	Med	1400	1405	1385	1345	1310	1260	1180	1080
	Med-Low	1200	1220	1210	1185	1155	1115	1045	965
105-20	High	2235	2185	2110	2030	1950	1835	1700	1540
	Med-High	1995	1970	1915	1845	1765	1680	1545	1415
	Med	1735	1735	1675	1625	1565	1480	1370	1265
	Med-Low	1510	1500	1485	1455	1400	1320	1230	1130
125-20	High	1145	1140	1125	1115	1100	1085	1045	990
	Med-High	—	2250	2190	2130	2055	1960	1875	1760
	Med-Low	—	2000	1960	1910	1850	1785	1710	1615
	Low	1700	1690	1670	1650	1610	1560	1490	1435
125-20	High	1480	1480	1480	1460	1430	1380	1320	1255
	Med-High	—	2250	2190	2130	2055	1960	1875	1760
	Med-Low	—	2000	1960	1910	1850	1785	1710	1615
	Low	1700	1690	1670	1650	1610	1560	1490	1435

—Indicates unstable operating conditions.

# Electrical data

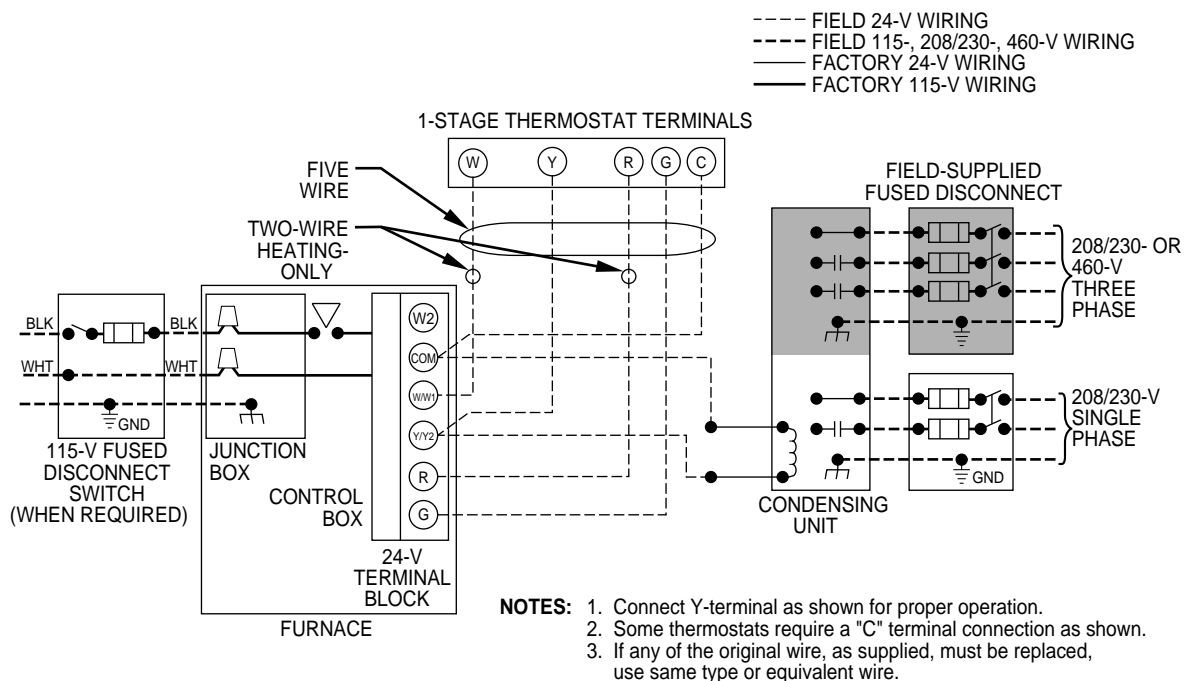
UNIT SIZE		065-08	065-12	085-12	085-16	105-16	105-20	125-20
UNIT VOLTS—HERTZ—PHASE		115—60—1						
MINIMUM WIRE SIZE		14	14	14	14	14	12	12
MAXIMUM WIRE LENGTH (Ft)*		46	35	30	26	28	32	31
MAXIMUM UNIT AMPS		8.0	10.5	12.0	14.2	13.2	17.9	18.4
OPERATING VOLTAGE RANGE (Min—Max)†		104—127						
MAXIMUM FUSE SIZE OR HACR-TYPE CKT BRK (Amps)‡		15	15	15	15	15	20	20
TRANSFORMER (24v)		40va						
EXTERNAL CONTROL POWER AVAILABLE	Heating	19va						
	Cooling	35va						
AIR CONDITIONING BLOWER RELAY		Standard						

\* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

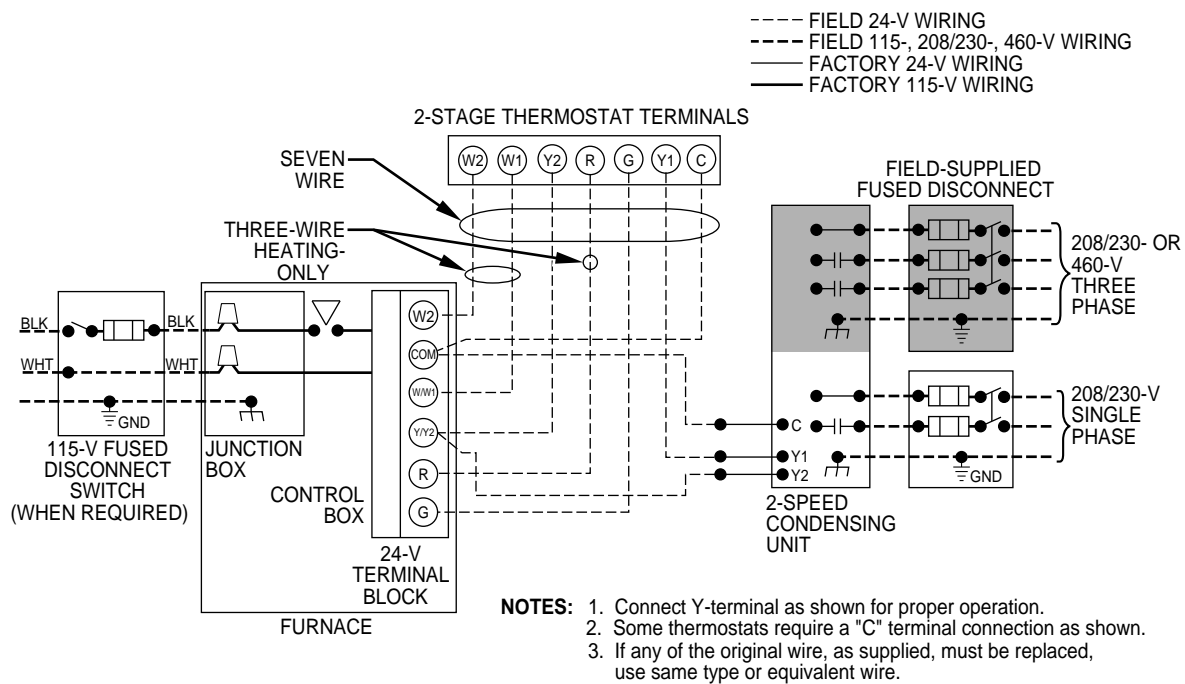
† Permissible limits of the voltage range at which the unit will operate satisfactorily.

‡ Time-delay fuse is recommended.

# Typical wiring schematic



A97443



A97444

# Typical installation

